

APS

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(FILE 'USPAT' ENTERED AT 07:20:10 ON 15 DEC 1998)
L1      1559 S 370/319,321,330,337,344,345,347,395,401,338/CCLS
L2      0 S ARIC AND L1
L3      21 S ARIC
L4      0 S ATM AND L3
L5      542 S ATM AND L1
L6      3 S L5 AND NIU
L7      118 S TDMA AND ATM
L8      33 S L7 AND L1
L9      43 S FDMA AND ATM
L10     11 S L9 AND L1
L11     10 S L10 AND L8
L12     50 S NETWORK MANAGER AND L1
L13     26 S L12 AND ATM
L14     0 S L13 AND L11
L15     0 S L13 AND ARIC
L16     2 S L13 AND BASE STATION
L17     349 S TRANSCEIVER AND L1
L18     1 S L17 AND CELLULAR AREA
L19     5 S POINT TO POINT AND CELLULAR AREA
L20     1 S L19 AND L1
L21     0 S POINT TO MULTIPOINT AND CELLULAR AREA
L22     5 S POINT TO MULTIPOINT AND NIU
L23     0 S L22 AND L1
L24     0 S INTERCELL AND ARIC
L25     20 S INTERCELL AND L1
L26     9 S L25 AND FDMA
L27     14 S L25 AND TDMA
L28     0 S SCALEABLE AND ARIC
L29     0 S SCALEABLE AND ARIC?
L30     0 S BROADBAND WIRELESS ACCESS AND L1
L31     6 S BROADBAND ACCESS AND L1
L32     0 S SCALEABEL AND L1
L33     2 S SCALEABLE AND L1
L34     0 S ARIC AND L33
L35     0 S ARIC AND L1
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=> s 370/319,321,330,337,344,345,347,395,401,338/ccls  
=> s broadband wireless network

L4                2 BROADBAND WIRELESS NETWORK  
=> s interface system and l1  
L7                14 INTERFACE SYSTEM AND L1  
=> s niu

L9                157 NIU

=> s 19 and l1

L10              8 L9 AND L1

=> s 17 and atm

                 21909 ATM  
L12              8 L7 AND ATM

=> s l12 and l1

L13              8 L12 AND L1

=> s aric

L14              21 ARIC

=> s tdma aric

=> s fdma aric

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=> s 370/319,321,330,337,344,345,347,395,401,338/ccls

                 36 370/319/CCLS  
                 93 370/321/CCLS  
                 104 370/330/CCLS  
                 210 370/337/CCLS  
                 49 370/344/CCLS  
                 75 370/345/CCLS  
                 280 370/347/CCLS  
                 508 370/395/CCLS  
                 291 370/401/CCLS  
                 79 370/338/CCLS  
L1                1559 370/319,321,330,337,344,345,347,395,401,338/CCLS  
                 ((370/319 OR 370/321 OR 370/330 OR 370/337 OR 370/344 OR  
370                                /345 OR 370/347 OR 370/395 OR 370/401 OR 370/338)/CCLS)

=> s aric

L3                21 ARIC

=> s atm and l1

                 21963 ATM  
L5                542 ATM AND L1

=> s 15 and niu

                 159 NIU  
L6                3 L5 AND NIU

=> d 16 1-3

1. 5,717,691, Feb. 10, 1998, Multimedia network interface for asynchronous transfer mode communication system; Rajiv S. Dighe, et al., **370/401**, 463, 466 [IMAGE AVAILABLE]

2. 5,684,791, Nov. 4, 1997, Data link control protocols for wireless **ATM** access channels; Dipankar Raychaudhuri, et al., 370/278, 280, 349, **395** [IMAGE AVAILABLE]

3. 5,638,371, Jun. 10, 1997, Multiservices medium access control protocol for wireless **ATM** system; Dipankar Raychaudhuri, et al., **370/347**, 349, **395** [IMAGE AVAILABLE]

=> s tdma and atm

2951 TDMA  
21963 ATM  
L7 118 TDMA AND ATM

=> s l7 and l1

L8 33 L7 AND L1

=> s fdma and atm

956 FDMA  
21963 ATM  
L9 43 FDMA AND ATM

=> s l9 and l1

L10 11 L9 AND L1

=> s l10 and l8

L11 10 L10 AND L8

=> d l10 1-10

1. 5,805,591, Sep. 8, 1998, Subscriber network interface; Marwan Naboulsi, et al., **370/395**; 348/12; 370/420, 486 [IMAGE AVAILABLE]

2. 5,751,703, May 12, 1998, Energy dispersal method for TDMA carrier; Hideo Kobayashi, et al., **370/321**, 442 [IMAGE AVAILABLE]

3. 5,729,526, Mar. 17, 1998, Asynchronous transfer mode type multimedia radiocommunication system; Makoto Yoshida, 370/206, 342, **347**, **395**, 538; 375/265 [IMAGE AVAILABLE]

4. 5,708,659, Jan. 13, 1998, Method for hashing in a packet network switching system; Michael D. Rostoker, et al., 370/392, **401**, 466 [IMAGE AVAILABLE]

5. 5,666,653, Sep. 9, 1997, Wide area radio communication system and method for communicating in a wide area through a wide area radio communication system; Karl-Axel Ahl, **370/330**; 455/443, 501, 524 [IMAGE AVAILABLE]

6. 5,661,723, Aug. 26, 1997, Radiocommunication system; Motoharu Ueno, et al., 370/315, 325, 329, **338**; 375/211, 267, 347; 455/13.1, 25, 422 [IMAGE AVAILABLE]
7. 5,608,725, Mar. 4, 1997, Method and apparatus of a communications system having a DMT infrastructure; Gary W. Grube, et al., **370/338**; 348/7; 370/384, 431; 455/403 [IMAGE AVAILABLE]
8. 5,592,469, Jan. 7, 1997, Radio system; Laszlo Szabo, 370/342, **344**, 468 [IMAGE AVAILABLE]
9. 5,553,069, Sep. 3, 1996, Radiocommunication system; Motoharu Ueno, et al., 370/315, 325, 329, **338**, **395**, 404; 375/211, 267, 347; 455/13.1, 25 [IMAGE AVAILABLE]
10. 5,533,008, Jul. 2, 1996, Method and apparatus for providing a communication system infrastructure; Gary W. Grube, et al., 370/252; 348/12, 13; **370/344**, **347**, 438; 455/5.1, 454, 515 [IMAGE AVAILABLE]

=> d 111 1-10

1. 5,751,703, May 12, 1998, Energy dispersal method for **TDMA** carrier; Hideo Kobayashi, et al., **370/321**, 442 [IMAGE AVAILABLE]
2. 5,729,526, Mar. 17, 1998, Asynchronous transfer mode type multimedia radiocommunication system; Makoto Yoshida, 370/206, 342, **347**, **395**, 538; 375/265 [IMAGE AVAILABLE]
3. 5,708,659, Jan. 13, 1998, Method for hashing in a packet network switching system; Michael D. Rostoker, et al., 370/392, **401**, 466 [IMAGE AVAILABLE]
4. 5,666,653, Sep. 9, 1997, Wide area radio communication system and method for communicating in a wide area through a wide area radio communication system; Karl-Axel Ahl, **370/330**; 455/443, 501, 524 [IMAGE AVAILABLE]
5. 5,661,723, Aug. 26, 1997, Radiocommunication system; Motoharu Ueno, et al., 370/315, 325, 329, **338**; 375/211, 267, 347; 455/13.1, 25, 422 [IMAGE AVAILABLE]
6. 5,608,725, Mar. 4, 1997, Method and apparatus of a communications system having a DMT infrastructure; Gary W. Grube, et al., **370/338**; 348/7; 370/384, 431; 455/403 [IMAGE AVAILABLE]
7. 5,592,469, Jan. 7, 1997, Radio system; Laszlo Szabo, 370/342, **344**, 468 [IMAGE AVAILABLE]
8. 5,553,069, Sep. 3, 1996, Radiocommunication system; Motoharu Ueno, et al., 370/315, 325, 329, **338**, **395**, 404; 375/211, 267, 347; 455/13.1, 25 [IMAGE AVAILABLE]
9. 5,533,008, Jul. 2, 1996, Method and apparatus for providing a communication system infrastructure; Gary W. Grube, et al., 370/252; 348/12, 13; **370/344**, **347**, 438; 455/5.1, 454, 515 [IMAGE AVAILABLE]
10. 5,195,090, Mar. 16, 1993, Wireless access telephone-to-telephone

network interface architecture; Brian D. Bolliger, et al., 370/314, 337; 455/422, 436, 560 [IMAGE AVAILABLE]

=> s network manager and l1

```
145382 NETWORK
9506  MANAGER
538   NETWORK MANAGER
      (NETWORK(W)MANAGER)
L12   50 NETWORK MANAGER AND L1
```

=> s l12 and atm

```
21963 ATM
L13   26 L12 AND ATM
```

=> s l13 and base station

```
772177 BASE
152179 STATION
6116   BASE STATION
      (BASE(W)STATION)
L16    2 L13 AND BASE STATION
```

=> d l16 1-2

1. 5,751,702, May 12, 1998, Network protocol for wireless broadband ISDN using **ATM**; Allan Evans, et al., 370/314, 337, 346, 347, 350, 508; 379/358 [IMAGE AVAILABLE]

2. 5,495,484, Feb. 27, 1996, Distributed telecommunications switching system; L. David Self, et al., 370/338, 396, 403; 379/84; 455/422 [IMAGE AVAILABLE]

=> s transceiver and l1

```
13677 TRANSCEIVER
L17   349 TRANSCEIVER AND L1
```

=> s l17 and cellular area

```
50662 CELLULAR
889137 AREA
69    CELLULAR AREA
      (CELLULAR(W)AREA)
L18   1 L17 AND CELLULAR AREA
```

=> d

1. 5,644,622, Jul. 1, 1997, Cellular communications system with centralized base stations and distributed antenna units; David S. Russell, et al., 455/422; 359/152, 173; 370/338 [IMAGE AVAILABLE]

=> s point to point and cellular area

```
1078969 POINT
1078969 POINT
17220  POINT TO POINT
      (POINT(1W)POINT)
```

50662 CELLULAR  
889137 AREA

69 CELLULAR AREA  
(CELLULAR(W)AREA)

L19 5 POINT TO POINT AND CELLULAR AREA

=> d 119 1-5

1. 5,657,374, Aug. 12, 1997, Cellular communications system with centralized base stations and distributed antenna units; David S. Russell, et al., 370/328; 455/422 [IMAGE AVAILABLE]

2. 5,644,622, Jul. 1, 1997, Cellular communications system with centralized base stations and distributed antenna units; David S. Russell, et al., 455/422; 359/152, 173; 370/338 [IMAGE AVAILABLE]

3. 5,642,405, Jun. 24, 1997, Cellular communications system with centralized base stations and distributed antenna units; Larry G. Fischer, et al., 455/444 [IMAGE AVAILABLE]

4. 5,627,879, May 6, 1997, Cellular communications system with centralized base stations and distributed antenna units; David S. Russell, et al., 370/328; 455/422 [IMAGE AVAILABLE]

5. 5,621,786, Apr. 15, 1997, Cellular communications system having passive handoff; Larry G. Fischer, et al., 455/436; 370/331, 334, 484; 455/504 [IMAGE AVAILABLE]

=> s 119 and 11

L20 1 L19 AND L1

=> d

1. 5,644,622, Jul. 1, 1997, Cellular communications system with centralized base stations and distributed antenna units; David S. Russell, et al., 455/422; 359/152, 173; 370/338 [IMAGE AVAILABLE]

=> s point to multipoint and niu

1078969 POINT  
2338 MULTIPOINT  
504 POINT TO MULTIPOINT  
(POINT(1W)MULTIPOINT)

159 NIU  
L22 5 POINT TO MULTIPOINT AND NIU

=> d 122 1-5

1. 5,771,238, Jun. 23, 1998, Enhanced one way radio seven bit data network; Michael Seward Sutton, 370/474, 477 [IMAGE AVAILABLE]

2. 5,742,414, Apr. 21, 1998, Multiplicity of services via a wavelength division router; Nicholas J. Frigo, et al., 359/125, 132, 137, 167 [IMAGE AVAILABLE]

3. 5,630,204, May 13, 1997, Customer premise wireless distribution of broad band signals and two-way communication of control signals over

power lines; Denny L. Hylton, et al., 455/3.3; 340/310.06; 348/6, 7, 8, 12; 370/342; 455/4.2, 5.1 [IMAGE AVAILABLE]

4. 5,473,329, Dec. 5, 1995, Performance monitoring for loops; Dev V. Gupta, et al., 341/73 [IMAGE AVAILABLE]

5. 5,394,145, Feb. 28, 1995, Performance monitoring for loops; Dev V. Gupta, et al., 341/73 [IMAGE AVAILABLE]

=> s intercell and l1

856 INTERCELL  
L25 20 INTERCELL AND L1

=> s 125 and fdma

956 FDMA  
L26 9 L25 AND FDMA

=> d 126 1-9

1. 5,818,820, Oct. 6, 1998, Method and system for data link expansion or contraction using spread spectrum TDMA communication; Gary B. Anderson, et al., 370/280, **337**, 348, 468; 455/452 [IMAGE AVAILABLE]

2. 5,787,076, Jul. 28, 1998, Multi-mode TDMA spread spectrum communication system; Gary B. Anderson, et al., 370/294, **337**, 437, 442, 468 [IMAGE AVAILABLE]

3. 5,768,264, Jun. 16, 1998, Time division multiple access base station supporting ISDN messages; Gary B. Anderson, et al., 370/280, 335, **337** [IMAGE AVAILABLE]

4. 5,745,484, Apr. 28, 1998, Efficient communication system using time division multiplexing and timing adjustment control; Logan Scott, **370/347**, 350, 508, 519; 455/517 [IMAGE AVAILABLE]

5. 5,732,076, Mar. 24, 1998, Coexisting communication systems; Thomas J. Ketseoglou, et al., **370/347**, 280, 281; 455/502 [IMAGE AVAILABLE]

6. 5,671,219, Sep. 23, 1997, Communication protocol for spread spectrum communication; Ryan N. Jensen, et al., 370/280, **345**, 522; 455/38.3, 69 [IMAGE AVAILABLE]

7. 5,648,955, Jul. 15, 1997, Method for power control in a TDMA spread spectrum communication system; Ryan N. Jensen, et al., 370/252, **337**; 455/38.3, 69 [IMAGE AVAILABLE]

8. 5,613,198, Mar. 18, 1997, Multiaccess scheme for mobile integrated local area networks; Hamid Ahmadi, et al., **370/337**, 329, 468; 455/62, 63, 452 [IMAGE AVAILABLE]

9. 5,195,090, Mar. 16, 1993, Wireless access telephone-to-telephone network interface architecture; Brian D. Bolliger, et al., 370/314, **337**; 455/422, 436, 560 [IMAGE AVAILABLE]

=> s 125 and tdma

2951 TDMA  
L27 14 L25 AND TDMA

=> d 127 1-14

1. 5,825,757, Oct. 20, 1998, Methods and apparatus for excluding communication channels in a radio telephone; Nguyen Quan Tat, et al., **370/330, 332, 337** [IMAGE AVAILABLE]
2. 5,818,820, Oct. 6, 1998, Method and system for data link expansion or contraction using spread spectrum **TDMA** communication; Gary B. Anderson, et al., 370/280, **337, 348, 468; 455/452** [IMAGE AVAILABLE]
3. 5,809,017, Sep. 15, 1998, Method of minimizing undersirable RF emissions within a **TDMA** system; David Anthony Smith, et al., 370/318, **321** [IMAGE AVAILABLE]
4. 5,787,076, Jul. 28, 1998, Multi-mode **TDMA** spread spectrum communication system; Gary B. Anderson, et al., 370/294, **337, 437, 442, 468** [IMAGE AVAILABLE]
5. 5,768,264, Jun. 16, 1998, Time division multiple access base station supporting ISDN messages; Gary B. Anderson, et al., 370/280, 335, **337** [IMAGE AVAILABLE]
6. 5,745,484, Apr. 28, 1998, Efficient communication system using time division multiplexing and timing adjustment control; Logan Scott, **370/347, 350, 508, 519; 455/517** [IMAGE AVAILABLE]
7. 5,732,076, Mar. 24, 1998, Coexisting communication systems; Thomas J. Ketseoglou, et al., **370/347, 280, 281; 455/502** [IMAGE AVAILABLE]
8. 5,671,219, Sep. 23, 1997, Communication protocol for spread spectrum communication; Ryan N. Jensen, et al., 370/280, **345, 522; 455/38.3, 69** [IMAGE AVAILABLE]
9. 5,648,955, Jul. 15, 1997, Method for power control in a **TDMA** spread spectrum communication system; Ryan N. Jensen, et al., 370/252, **337; 455/38.3, 69** [IMAGE AVAILABLE]
10. 5,613,198, Mar. 18, 1997, Multiaccess scheme for mobile integrated local area networks; Hamid Ahmadi, et al., **370/337, 329, 468; 455/62, 63, 452** [IMAGE AVAILABLE]
11. 5,537,414, Jul. 16, 1996, Method of wireless communication between base station and mobile station and multiple access communication system; Yoshihiro Takiyasu, et al., **370/347; 371/33; 455/509** [IMAGE AVAILABLE]
12. 5,533,027, Jul. 2, 1996, Digital fixed radio access system providing local mobility; Dag E. Akerberg, et al., **370/347, 280; 455/15** [IMAGE AVAILABLE]
13. 5,210,753, May 11, 1993, Robust scheduling mechanism for efficient band-width usage in multicell wireless local networks; Kadathur S. Natarajan, **370/338; 455/443, 452** [IMAGE AVAILABLE]
14. 5,195,090, Mar. 16, 1993, Wireless access telephone-to-telephone network interface architecture; Brian D. Bolliger, et al., 370/314,



337; 455/422, 436, 560 [IMAGE AVAILABLE]

=> s broadband access and l1

9497 BROADBAND  
300971 ACCESS  
44 BROADBAND ACCESS  
(BROADBAND(W)ACCESS)  
L31 6 BROADBAND ACCESS AND L1

=> d l31 1-6

1. 5,812,550, Sep. 22, 1998, Asynchronous transfer mode (ATM) layer function processing apparatus with an enlarged structure; Sung Won Sohn, et al., 370/395, 469 [IMAGE AVAILABLE]

2. 5,781,320, Jul. 14, 1998, Fiber access architecture for use in telecommunications networks; Charles Calvin Byers, 359/123, 135, 139, 163; 370/395, 905, 907 [IMAGE AVAILABLE]

3. 5,663,947, Sep. 2, 1997, Switching control system for controlling physical connection structures in a communications system; Regina Wille-Fier, et al., 370/360, 395 [IMAGE AVAILABLE]

4. 5,596,572, Jan. 21, 1997, System for coordinating connection requests; Regina Wille-Fier, et al., 370/360, 384, 395 [IMAGE AVAILABLE]

5. 5,475,679, Dec. 12, 1995, Large capacity ATM switch; Ernst A. Munter, 370/395; 359/117, 123, 139; 370/412 [IMAGE AVAILABLE]

6. 5,452,297, Sep. 19, 1995, Access switches for large ATM networks; Thomas L. Hiller, et al., 370/395 [IMAGE AVAILABLE]

=> s scaleable and l1

389 SCALEABLE  
L33 2 SCALEABLE AND L1

=> d l33 1-2

1. 5,781,549, Jul. 14, 1998, Method and apparatus for switching data packets in a data network; William Dai, 370/398, 401, 474 [IMAGE AVAILABLE]

2. 5,724,351, Mar. 3, 1998, **Scaleable** multicast ATM switch; Hung-Hsiang Jonathan Chao, et al., 370/395, 389, 397, 905 [IMAGE AVAILABLE]

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L1 1559 S 370/319,321,330,337,344,345,347,395,401,338/CCLS  
L2 0 S ARIC AND L1  
L3 21 S ARIC  
L4 0 S ATM AND L3  
L5 542 S ATM AND L1

L6	3 S L5 AND NIU
L7	118 S TDMA AND ATM
L8	33 S L7 AND L1
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L15	0 S L13 AND ARIC
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L19	5 S POINT TO POINT AND CELLULAR AREA
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L22	5 S POINT TO MULTIPOINT AND NIU
L23	0 S L22 AND L1
L24	0 S INTERCELL AND ARIC
L25	20 S INTERCELL AND L1
L26	9 S L25 AND FDMA
L27	14 S L25 AND TDMA
L28	0 S SCALEABLE AND ARIC
L29	0 S SCALEABLE AND ARIC?
L30	0 S BROADBAND WIRELESS ACCESS AND L1
L31	6 S BROADBAND ACCESS AND L1
L32	0 S SCALEABEL AND L1
L33	2 S SCALEABLE AND L1
L34	0 S ARIC AND L33
L35	0 S ARIC AND L1

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